

REMARKS/ARGUMENTS

Claim Objections

The examiner has objected to claims 1-6 and 10-12 as “missing a method step”. Applicant respectfully acknowledges that the requirement to include subject matter presents a substantive matter (MPEP 706.03), which applicant will reply to should the claims be treated as such.

MPEP 706.01 Contrasted With Objections [R-2] states “The refusal to grant claims because the subject matter as claimed is considered unpatentable is called a "rejection." The term "rejected" must be applied to such claims in the examiner's action. If the form of the claim (as distinguished from its substance) is improper, an "objection" is made.” (Emphasis added)

The preclusion of patentability to include subject matter which narrows the claim scope as suggested by the examiner and presents no issues with regard to the form of the claim (i.e. improperly dependent, spelling, grammatical) is therefore a *defacto* rejection.

Assuming *arguendo* that the examiner intends a rejection, the examiner’s requirement to include a missing step is improperly based on an element of the claim that is independent of the method of transformation as claimed. Guidance for rejection of missing essential matter in a claim is found in MPEP 2172, which states:

>But see *Ex parte Nolden*, 149 USPQ 378, 380 (Bd. Pat. App. 1965) (“It is not essential to a patentable combination that there be interdependency between the elements of the claimed device or that all the elements operate concurrently toward the desired result”); *Ex parte Huber*, 148 USPQ 447, 448-49 (Bd. Pat. App. 1965) (A claim does not necessarily fail to comply with 35 U.S.C. 112, second paragraph where the various elements do not function simultaneously, are not directly functionally related, do not directly intercooperate, and/or serve independent purposes.).<

Independent claim 1 is drawn to:

A method for transforming *Parthenium argentatum* (Guayule) with a target gene, comprised of the steps of:

- a. dipping and saturating leaf strips of Guayule, previously grown in sterile culture, in a solution of *Agrobacterium* which has been transformed with a vector containing a target gene; and
- b. introducing said leaf strips to a nutrient subculture and to controlled light conditions, and maintaining said leaf strips under said controlled light conditions in said nutrient subculture until shoot formation occurs; optionally, with subsequent root formation, thus producing transformed plantlets of Guayule.

The method is to transforming Guayule with at target gene wherein the transformation occurs at the steps of using the vector containing the target gene and controlling the light conditions until shoot formation occurs. Although the production of a plantlet is an element of the claim, the transformation of the target gene to Guayule is complete at the phase of light control/shoot formation within the nutrient subculture. One of skill in the art would recognize based on the specification that no essential matter is missing in this regard; moreover, that there is no requirement at this point to form a plantlet and consistent with the MPEP 2172 citation cited *supra*, the desired result (transformation) has been achieved at this point.

Furthermore, consistent with MPEP 2172, the claim proceeds after the semicolon with the independent and optional purpose of producing a plantlet. Thus the optional plantlet step that the examiner has limited the method to does not function simultaneously with the claimed transformation, is not directly functionally related, does not directly intercooperate, and/or serves an independent purpose beyond the transformed nutrient subculture with shoot formation.

Claim Rejections

35 U.S.C. §102

Claim 1 is anticipated by Wood, *Agricultural Res. Magazine*, Vol. 47(5), 1999 (WOOD). The examiner states that “Wood teaches that the claimed method was invented, used and publicly disclosed by applicant as early as May of 1999. [Seesecond column...p. 19].”.

35 U.S.C. 102 statutorily requires that in order for a prior art reference to anticipate a claim the reference must disclose expressly or inherently all the elements and limitations of the claim. If even one element of limitation of the claim is missing, a §102 rejection fails.

Claim 1 is drawn to:

A method for transforming *Parthenium argentatum* (Guayule) with a target gene, comprised of the steps of:

- a. dipping and saturating leaf strips of Guayule, previously grown in sterile culture, in a solution of *Agrobacterium* which has been transformed with a vector containing a target gene; and
- b. introducing said leaf strips to a nutrient subculture and to controlled light conditions, and maintaining said leaf strips under said controlled light conditions in said nutrient subculture until shoot formation occurs; optionally, with subsequent root formation, thus producing transformed plantlets of Guayule.

No where in WOOD is there taught the critical element of “introducing said leaf strips to a nutrient subculture and to controlled light conditions, and maintaining said leaf strips under said controlled light conditions in said nutrient subculture until shoot formation occurs”.

In the absence of this critical element, the 35 U.S.C. §102 rejection fails.

35 U.S.C. §103(a)

Claims 2-6 and 10-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wood in view of Jorgensen, U.S. 5,180,873 (JORGENSEN).

As cited supra and acknowledged by the examiner (p. 3 of the office action) WOOD does not teach the use of selectable media nor the claimed light conditions. WOOD does not teach the critical element of controlling the light conditions which is neither taught nor remedied by the teachings of JORGENSEN.

MPEP 2141, Examination Guidelines for Determining Obviousness Under 35 U.S.C. 103, Applicant's Rebuttal cites proper rebuttals as:

- (A) one of ordinary skill in the art could not have combined the claimed elements by known methods
- (B) the elements in combination do not merely perform the function that each element performs separately; or
- (C) the results of the claimed combination were unexpected.

As cited supra, since controlling light conditions to effect transformation in nutrient subculture was not taught in the prior art, one of skill in the art could not have combined the claimed elements by known methods, additionally, the transformation elements stated in the prior art do not combine to either suggest, perform or function by controlling light conditions within the nutrient subculture.

For the reasons cited above, withdrawal of the rejection(s) of record is respectfully requested.

CONCLUSION

If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at 510-559-5731.

Respectfully submitted,

A handwritten signature in cursive script, appearing to read "Howard Owens".

Howard Owens
Reg. No. 58,219

USDA, ARS, OTT
800 Buchanan Street
Albany, California 94710
Tel: 510-559-5731
Fax: 510-559-5736